

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 3448 1/16/2001]

[Docket No. 2000-NE-44-AD; Amendment 39-12071; AD 2001-01-01]

RIN 2120-AA64

Airworthiness Directives; BMW Rolls-Royce GmbH Models BR700-710A1-10 and BR700-710A2-20 Turbofan Engines.

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD) that is applicable to BMW Rolls-Royce (RR) GmbH models BR700-710A1-10 and BR700-710A2-20 turbofan engines with oil filter differential pressure switch part number (P/N) 21SN04-419 or P/N 21SN04-431 installed. This action requires inspections of oil filter differential pressure switches, and replacement if necessary, in accordance with Rolls-Royce Service Bulletin No. SB-BR700-79-900215, Revision 2, dated August 2, 2000. This amendment is prompted by a report of severe engine oil loss, caused by oil leakage from a defective oil filter differential pressure switch. The actions specified in this AD are intended to prevent defective oil filter differential pressure switches from causing severe engine oil loss, resulting in in-flight shutdowns.

**DATES:** Effective January 31, 2001. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 31, 2001.

Comments for inclusion in the Rules Docket must be received on or before March 19, 2001.

**ADDRESSES:** Submit comments to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2000-NE-44-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in this AD may be obtained from BMW Rolls-Royce GmbH, Postfach 1246, 61402 Oberursel, Germany; telephone: International Access Code 011, Country Code 49, 33 7086-2935, fax: International Access Code 011, Country Code 49, 33 7086-3276. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone: 781-238-7176, fax: 781-238-7199.

**SUPPLEMENTARY INFORMATION:** The Luftfahrt-Bundesamt (LBA), which is the airworthiness authority for Germany, recently notified the Federal Aviation Administration (FAA) that an unsafe condition may exist on BMW RR GmbH models BR700-710A1-10 and BR700-710A2-20 turbofan engines. The LBA received a report of severe engine oil loss, caused by oil leaking from a defective oil filter differential

pressure switch, resulting in an in-flight engine shutdown. BMW RR has identified and provided in a list, serial numbers for pressure switches that are not defective. BMW RR has determined that for pressure switches with less than 200 flight hours-since-new, that are not one of the listed switches, and are not leaking, 50 flight hours will be allowed after the effective date of this AD before the required replacement with a serviceable switch. For pressure switches with 200 or more flight hours-since-new, 150 flight hours will be allowed after the effective date of this AD before the required replacement with a serviceable switch. This is based on calculations that pressure switches with 200 or more flight hours-since-new have successfully passed a threshold for failure. An analysis conducted by BMW RR revealed that the engine shutdown rate due to oil leaking from defective oil filter differential pressure switches is unacceptable, and could result in multiple engine in-flight shutdowns. The actions specified in this AD are intended to prevent defective oil filter differential pressure switches from causing severe engine oil loss, resulting in in-flight engine shutdowns.

### **Service Information**

RR has issued Service Bulletin No. SB-BR700-79-900215, Revision 2, dated August 2, 2000, which specifies procedures for inspecting, marking, and if necessary replacing oil filter differential pressure switch P/N 21SN04-419 or P/N 21SN04-431 with a serviceable switch. The LBA issued AD No. 2000-257/2, in response to the service bulletin to assure the airworthiness of these engines in Germany.

### **Bilateral Airworthiness Agreement**

These engine models are manufactured in Germany and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the LBA has kept the FAA informed of the situation described above. The FAA has examined the findings of the LBA, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

### **Required Actions**

Since an unsafe condition has been identified that is likely to exist or develop on other engines of the same type design registered in the United States, this AD is being issued to prevent defective oil filter differential pressure switch P/N 21SN04-419 or P/N 21SN04-431 from causing severe engine oil loss, resulting in in-flight shutdown. The actions would be required to be accomplished in accordance with the service bulletin described previously.

### **Immediate Adoption**

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

### **Comments Invited**

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted to the address specified under the caption "ADDRESSES." All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: “Comments to Docket Number 2000-NE-44-AD.” The postcard will be date stamped and returned to the commenter.

### **Regulatory Impact**

This action does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this proposal.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a “significant regulatory action” under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption “ADDRESSES.”

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§39.13 [Amended]**

2. Section 39.13 is amended by adding the following new airworthiness directive:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "av-info.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2001-01-01 BMW Rolls-Royce GmbH:** Amendment 39-12071. Docket 2000-NE-44-AD.

## **Applicability:**

This airworthiness directive (AD) applies to BMW Rolls-Royce (RR) GmbH models BR700-710A1-10 and BR700-710A2-20 turbofan engines with oil filter differential pressure switch part number (P/N) 21SN04-419 or P/N 21SN04-431 installed. These engines are installed on, but not limited to Bombardier Inc. BD-700 and Gulfstream Aerospace Corp. G-V series airplanes.

**Note 1:** This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

## **Compliance:**

Compliance with this AD is required as indicated, unless already done. To prevent defective oil filter differential pressure switches from causing severe engine oil loss, resulting in in-flight shutdowns, perform the following:

## **Number Checking, Marking, and Replacement.**

(a) Within 50 flight hours after the effective date of this AD, mark or replace the oil filter differential pressure switch as follows:

(1) If the oil filter differential pressure switch serial number is listed in Appendix 1 of RR Service Bulletin SB-BR700-79-900215, Revision 2, dated August 2, 2000, then mark the switch in accordance with the Accomplishment Instructions, Section 3, of RR Service Bulletin SB-BR700-79-900215, Revision 2, dated August 2, 2000. No further action is required.

(2) If the oil filter differential pressure switch serial number is not listed in Appendix 1 of RR Service Bulletin SB-BR700-79-900215, Revision 2, dated August 2, 2000, then replace the switch as follows:

(i) For oil pressure switches with less than 200 flight hours-since-new on the effective date of this AD, replace the pressure switch with a serviceable switch, within 50 flight hours after the effective date of this AD, in accordance with Accomplishment Instructions, Section 3, Part 2 of RR Service Bulletin SB-BR700-79-900215, Revision 2, dated August 2, 2000.

(ii) For oil pressure switches with 200 or more flight hours-since-new on the effective date of this AD, replace the pressure switch with a serviceable switch, within 150 flight hours after the effective date of this AD, in accordance with Accomplishment Instructions, Section 3, Part 2 of RR Service Bulletin SB-BR700-79-900215, Revision 2, dated August 2, 2000.

### **Definition of Serviceable Switch**

(b) For the purpose of this AD, the definition of a serviceable switch is an oil filter differential pressure switch P/N 21SN04-419 or 21SN04-431 that has a manufacturer-applied orange stripe on the switch cap, or, a pressure switch whose serial number is listed in Appendix 1 of RR Service Bulletin SB-BR700-79-900215, Revision 2, dated August 2, 2000, and has been marked with orange paint in accordance with the Accomplishment Instructions, Section 3, of RR Service Bulletin SB-BR700-79-900215, Revision 2, dated August 2, 2000.

### **Alternative Methods of Compliance**

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the ECO.

### **Special Flight Permits**

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

### **Incorporation by Reference**

(e) The actions required by this AD must be performed in accordance with BMW RR Service Bulletin No. SB-BR700-79-900215, Revision 2, dated August 2, 2000. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from BMW Rolls-Royce GmbH, Postfach 1246, 61402 Oberursel, Germany; telephone: International Access Code 011, Country Code 49, 33 7086-2935, fax: International Access Code 011, Country Code 49, 33 7086-3276. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

### **Effective Date of This AD**

(f) This amendment becomes effective on January 31, 2001.

**FOR FURTHER INFORMATION CONTACT:** James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone: 781-238-7176, fax: 781-238-7199.

Issued in Burlington, Massachusetts, on January 4, 2001.

Jay J. Pardee, Manager, Engine and Propeller Directorate, Aircraft Certification Service.